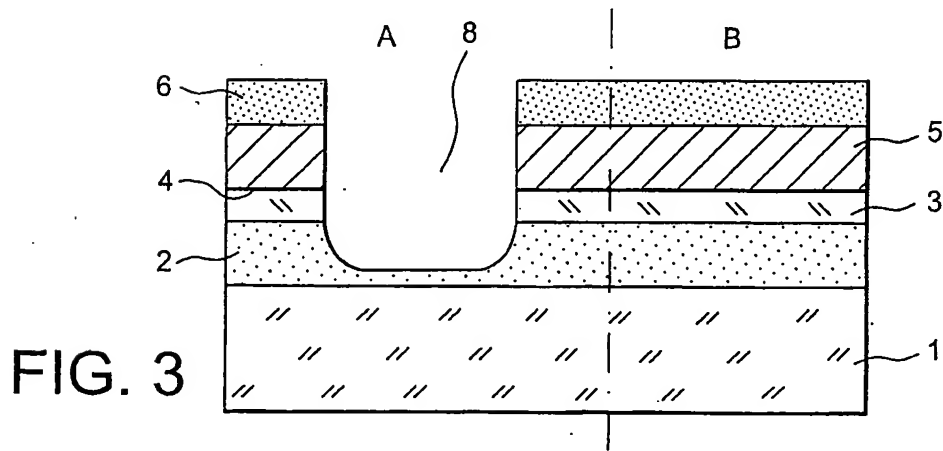
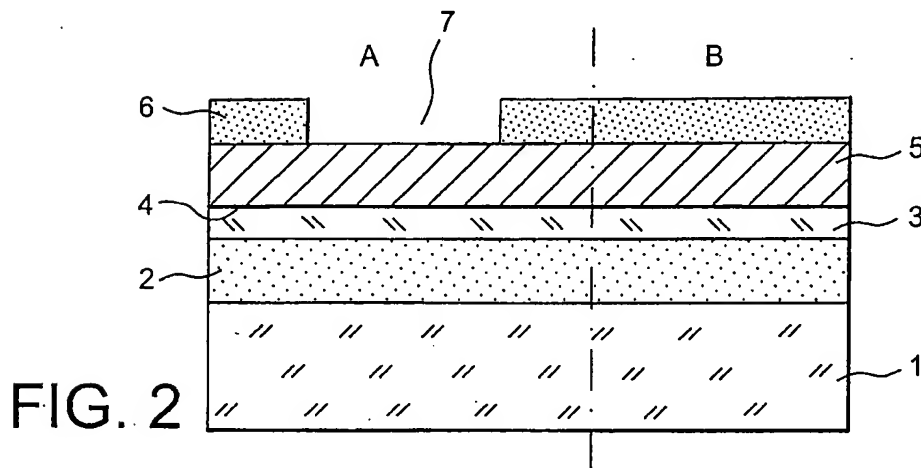
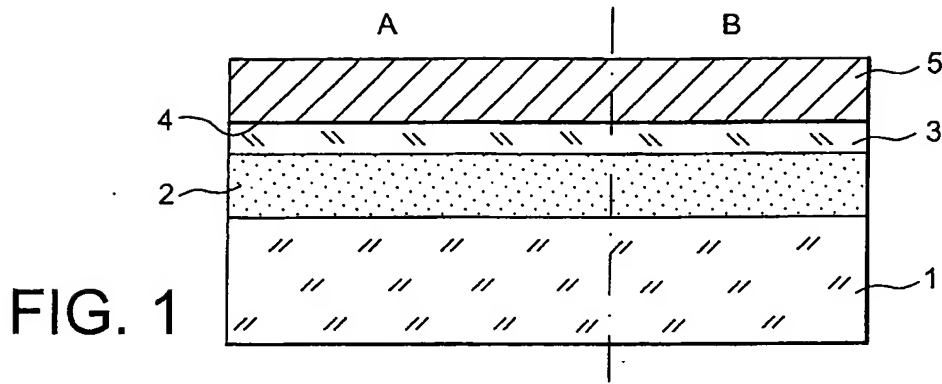


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A cross-sectional view of a semiconductor device. A substrate (1) is shown at the bottom. Above it is a layer (2) with a dotted pattern. A U-shaped trench (8) is formed in layer (2). The inner surface of the trench is coated with a layer (6). The bottom of the trench is filled with a material (10). Above layer (2) is a layer (3) with a horizontal line pattern. Above layer (3) is a layer (4) with a diagonal line pattern. Above layer (4) is a layer (5) with a diagonal line pattern. A vertical dashed line (9) is shown on the right side of the device. The label 'A' is placed above the trench, and the label 'B' is placed above the right side of the device.

A cross-sectional view of a semiconductor device, divided into two regions, A and B, by a vertical center line. The device consists of several layers: a bottom substrate (1) with diagonal hatching, a thin layer (2) with a dotted pattern, and a thin layer (3) with a horizontal line pattern. In region A, a U-shaped trench is formed in the thin layer (2). The trench is filled with a material (4) having diagonal hatching. Above the trench, a layer (5) with diagonal hatching is present, and a layer (6) with a dotted pattern is on top. In region B, a contact plug is formed, consisting of a layer (11) with diagonal hatching and a layer (12) with a dotted pattern on top. The thin layer (3) is also present in region B.

FIG. 5

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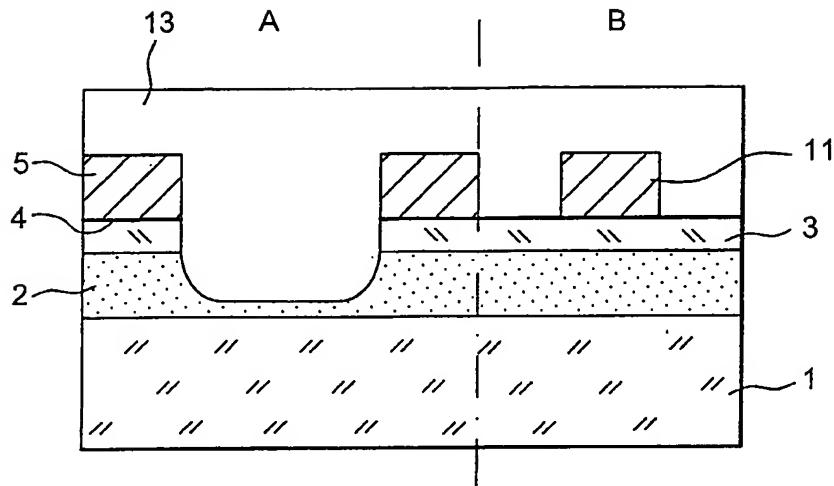


FIG. 6

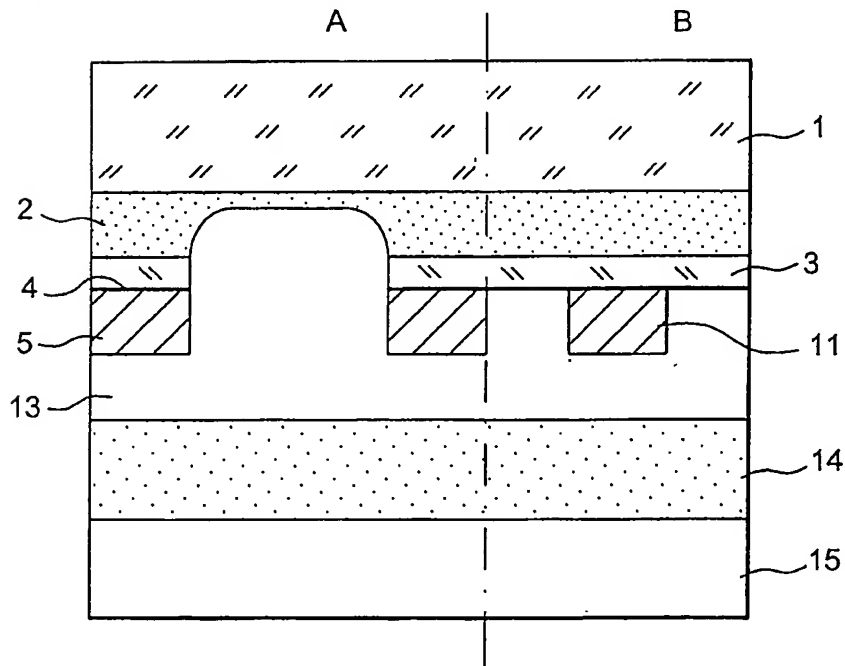


FIG. 7

A

B



A

B



A

B



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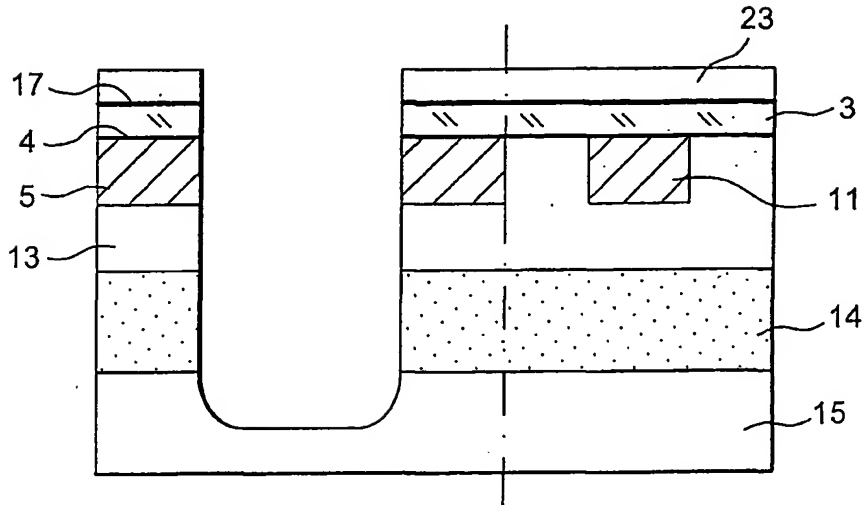


FIG. 12

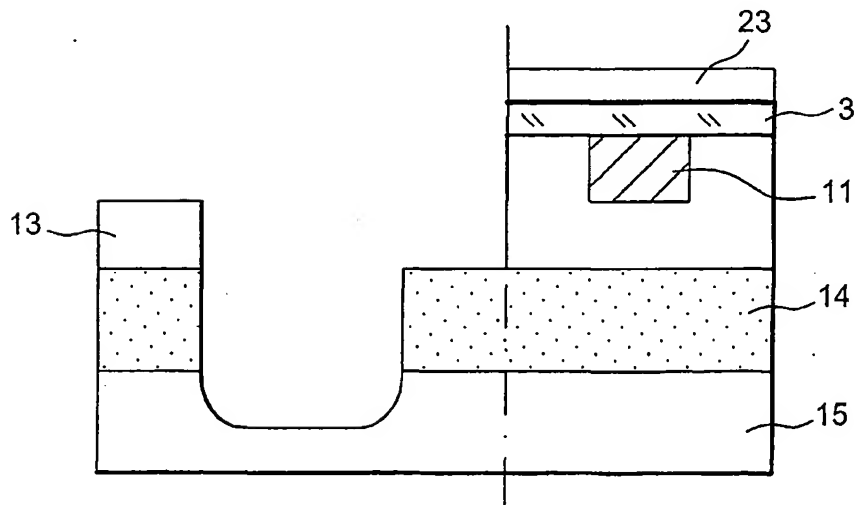


FIG. 13

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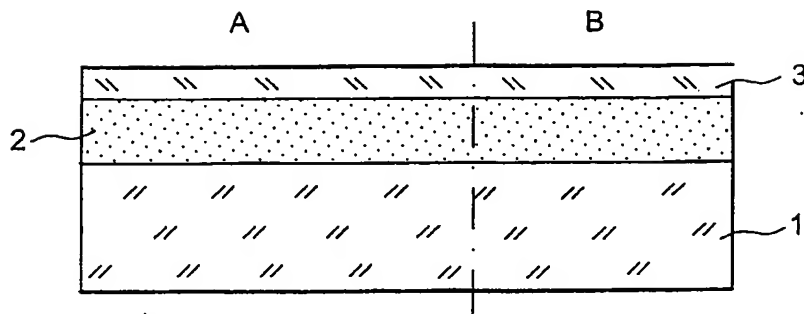


FIG. 14

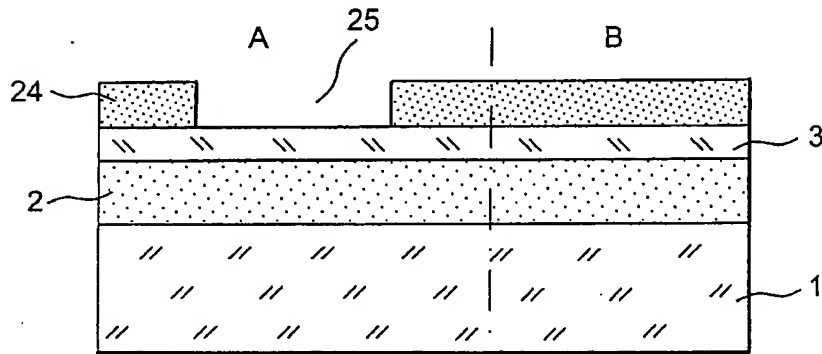


FIG. 15

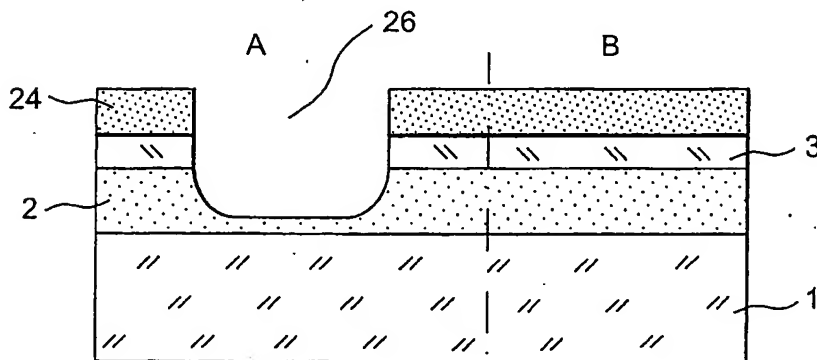


FIG. 16

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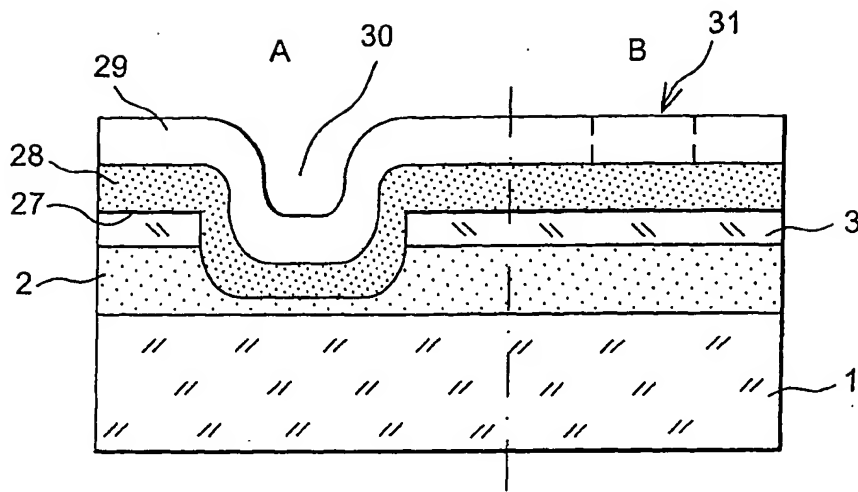


FIG. 17

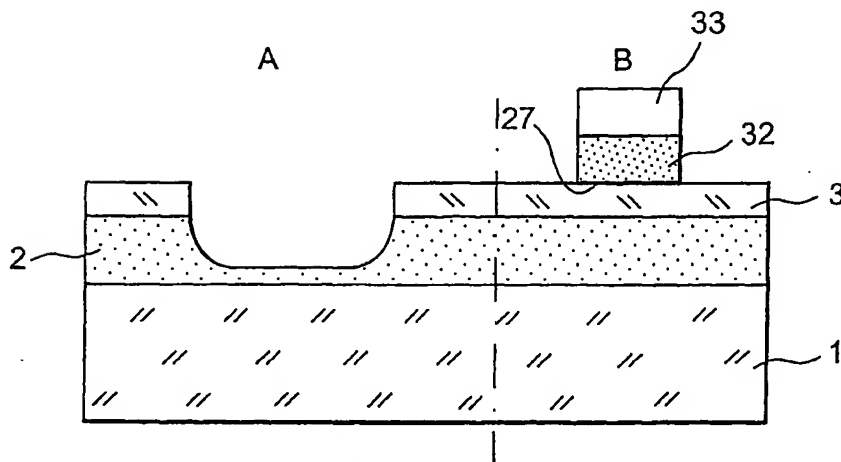


FIG. 18

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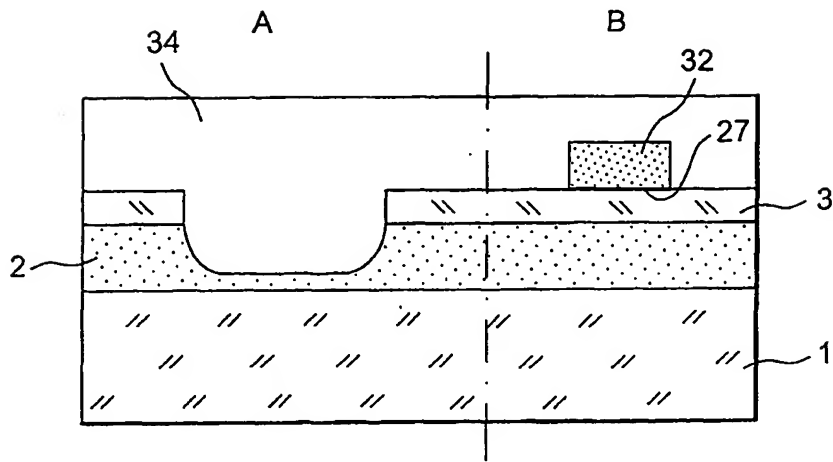


FIG. 19

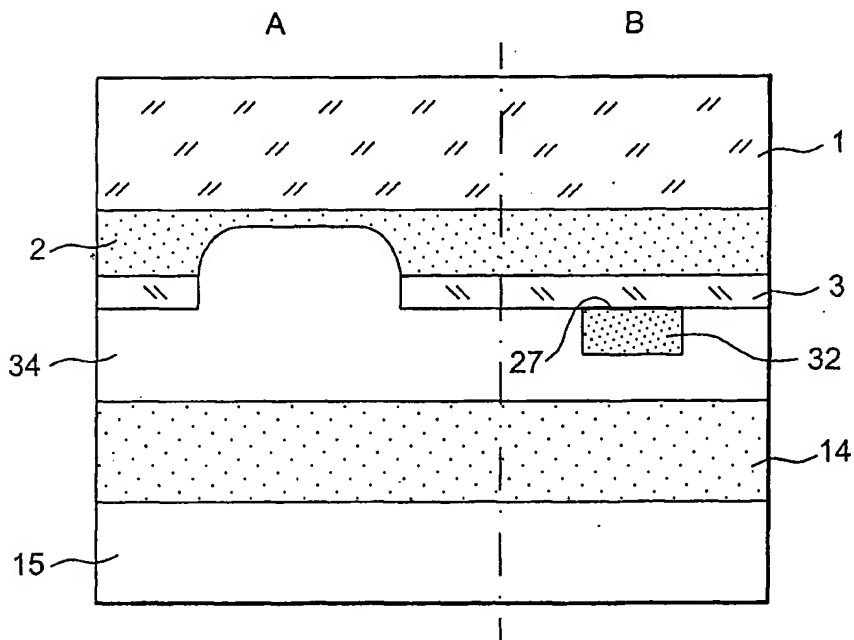


FIG. 20